

CLAIMS

1. Method for charging costs of enjoying contents transmitted over a telecommunications network, preferably the Internet network, wherein chargeable contents, in the shape of one or more digital documents or files, are transmitted from at least one server (3) of a Contents Provider (or CP), which a user accesses by means of a computer (4) connected to said at least one server (3) through the telecommunications network, a gateway system (2, 5, 7) carrying out the checks for authorisation of the user's access to the chargeable contents, an electronic wallet (5) performing operations of charging costs to a user's account, the method being characterised in that it preliminary associates one or more additional information related to file charging criteria with each chargeable file, and in that it comprises the following steps:

A. at each transmission of at least one portion of a chargeable file from said at least one server (3) of the CP to the user's computer (4), reading and interpreting said additional information associated with the file;

B. transmitting to the user's computer (4) said at least one portion of the chargeable file; and

C. transmitting to the electronic wallet (5) data related to charging as a function of said additional information associated with the file.

2. Method according to claim 1, characterised in that the electronic wallet is integrated into the gateway system (5).

3. Method according to claim 1, characterised in that the electronic wallet is integrated into the user's computer (4).

4. Method according to any one of the preceding claims, characterised in that at least one part of steps A, B, and C is performed by a routing electronic apparatus or router (1).

5. Method according to any one of the preceding claims, characterised in that said additional information associated with each chargeable file comprise:

a file type, preferably according to MIME encoding, and/or  
a charging mode preferably selected from the group comprising start charge, end charge, and charge during streaming, and/or

a tariff unit, preferably selected from the group comprising packet unit, document unit, flat rate unit, and/or

a tariff unit cost, and/or  
a tariff unit interval for charging, and/or  
a user's identification code, and/or  
a CP identification code, and/or  
a file title or identifier.

5

6. Method according to any one of the preceding claims, characterised in that said at least one chargeable file portion transmitted in step A is included in a data packet.

10

7. Method according to any one of the preceding claims, characterised in that said additional information associated with each chargeable file are directly encoded in the chargeable file and/or are included in an auxiliary file associated with the chargeable file.

15

8. Method according to any one of the preceding claims, characterised in that said at least one chargeable file portion and said associated additional information are encoded in a transmission protocol.

20

9. Method according to any one of the preceding claims, characterised in that step C is performed immediately before start of transmission of step B or immediately after the end of transmission of step B or periodically during transmission of step B.

25

10. Method according to any one of the preceding claims, characterised in that it further comprises the following step:

D. at each transmission of at least one chargeable file portion from said at least one CP server (3) to the user's computer (4), reading and/or recording data related to charging as a function of said additional information associated with the file.

30

11. Method according to claim 10, characterised in that step C is periodically performed independently from time periods of transmission of step B.

35

12. Method according to claim 10 or 11, when depending on claim 4, characterised in that step D is performed by the router (1).

13. Method according to any one of the preceding claims, characterised in that the gateway system (2, 5, 7) comprises a first gateway apparatus (2).

40

14. Method according to claim 13, characterised in that the gateway system (2, 5, 7) is distributed and comprises at least a second gateway apparatus (5, 7) connected to the first gateway apparatus (2).

15. Method according to claim 14, characterised in that the

gateway system (2, 5, 7) operates according to the mechanism of clearing houses used in financial environment.

16. Method according to any one of the preceding claims, characterised in that the gateway system (2, 5, 7) operates as escrow  
5 between the server (3) and the user accessing by means of the computer (4).

17. Method according to claim 4 or any one of claims 5-16, when depending on claim 4, characterised in that the router (1) operates as escrow between the server (3) and the user accessing by means of the  
10 computer (4).

18. Method according to any one of the preceding claims, characterised in that in step B information related to cost and/or to the status of chargeable file transmission are transmitted to the user's computer (4).

19. Method according to any one of the preceding claims, characterised in that the user is apt to access two or more servers (3) by means of the computer (4) by inputting data registered in the gateway system (2, 5, 7) which define a sole user's digital identity recognised as valid for all said two or more servers (3).  
15

20. Method according to claim 4 or any one of claims 5-19, when depending on claim 4, characterised in that the router (1) reads and interprets a user's digital identity for locating, through a gateway search system using at least one DNS (Domain Name System) function, an IP address of the gateway system (2, 5, 7) corresponding to the user's one,  
20 the router (1) forwarding to the gateway system (2, 5, 7) the authentication request and carrying out charging of contents uses enjoyed by the user accessing by means of the computer (4).  
25

21. System for charging costs of enjoying contents transmitted over a telecommunications network, preferably the Internet network, comprising at least one server (3) of a Contents Provider (or CP), apt to transmit chargeable contents, in the shape of one or more digital documents or files, one or more computers (4), by means of which one or more users access said at least one server (3), a gateway system (2, 5, 7), apt to carry out checks of authorisation of user's access to the chargeable contents and operations of charging costs to a user's account, the system being characterised in that it performs the method for charging costs of enjoying contents transmitted over a telecommunications network  
30  
35

26

according to any one of the preceding claims 1-20.

22. System according to claim 21, characterised in that said at least one server (3) is provided with a plug-in or daemon software, interfacing the http server program that associates said additional  
5 information related to file charging criteria with each chargeable file.

23. System according to claim 21 or 22, characterised in that said at least one server (3) performs steps A, B, and C of the method for charging costs of enjoying contents transmitted over a telecommunications network according to any one of claims 1-3, or according to any one of  
10 claims 5-20, when not depending on claim 4.

24. System according to claim 21 or 22, characterised in that it further comprises a routing electronic apparatus or router (1), comprising a processing unit, one or more memory units, one or more input/output interfaces, apt to connect to said at least one server (3), to the gateway  
15 system (2, 5, 7), and to said one or more computers (4), and apt to perform steps A, B, and C of the method for charging costs of enjoying contents transmitted over a telecommunications network according to claim 4 or according to any one of claims 5-20, when depending on claim 4.

25. System according to any one of claims from 21 to 24, characterised in that the gateway system (2, 5, 7) comprises a first gateway apparatus (2).

26. System according to claim 25, characterised in that the gateway system (2, 5, 7) is distributed and comprises at least a second  
25 gateway apparatus (5, 7) connected to the first gateway apparatus (2).

27. System according to claim 26, characterised in that the gateway system (2, 5, 7) operates according to the mechanism of clearing houses used in financial environment.

28. Routing electronic apparatus or router (1), comprising a  
30 processing unit, one or more memory units, one or more input/output interfaces, characterised in that it is apt to be used in a system for charging costs of enjoying contents transmitted over a telecommunications network according to claim 24 or any one of claims from 25 to 27, when depending on claim 24, wherein the router (1) is apt to connect to said at  
35 least one server (3), to the gateway system (2, 5, 7), and to said one or more computers (4), and it is apt to perform steps A, B, and C of the method for charging costs of enjoying contents transmitted over a

telecommunications network according to claim 4 or any one of claims 5-20, when depending on claim 4.

29. Electronic document or file, apt to be transmitted by at least one server (3) of a Contents Provider (or CP) in exchange of a payment according to the method for charging costs of enjoying contents transmitted over a telecommunications network according to any one of the preceding claims 1-20, and in that it is provided with said additional information associated with it.

30. Computer program characterised in that it comprises code means adapted to execute, when running on at least one computer, steps A, B, and C of the method for charging costs of enjoying contents transmitted over a telecommunications network according to any one of the preceding claims 1-20.

31. Memory medium, readable by a computer, storing a program, characterised in that the program is the computer program according to claim 30.

32. Computer program characterised in that it comprises code means adapted to execute, when running on a router (1), step A of the method for charging costs of enjoying contents transmitted over a telecommunications network according to any one of the preceding claims 1-20.

33. Memory medium, readable by a computer, storing a program, characterised in that the program is the computer program according to claim 32.

34. Computer program characterised in that it comprises code means adapted to execute, when running on at least one server (3) of a Contents Provider (or CP) apt to transmit one or more chargeable file, the operation of association of one or more additional information related to file charging criteria with each chargeable file.

35. Memory medium, readable by a computer, storing a program, characterised in that the program is the computer program according to claim 34.

36. Computer program characterised in that it comprises code means adapted, when running on at least one computer, to interface to the http server of the server (3) and to re-address the authentication requests of at least one user and the data flow towards the router (1) of which it has stores the IP address.

37. Memory medium, readable by a computer, storing a program, characterised in that the program is the computer program according to claim 36.